

CVEQ Series

Line Drivers for Composite Video and Stereo Audio with Video Gain and Equalization



COMMON FEATURES

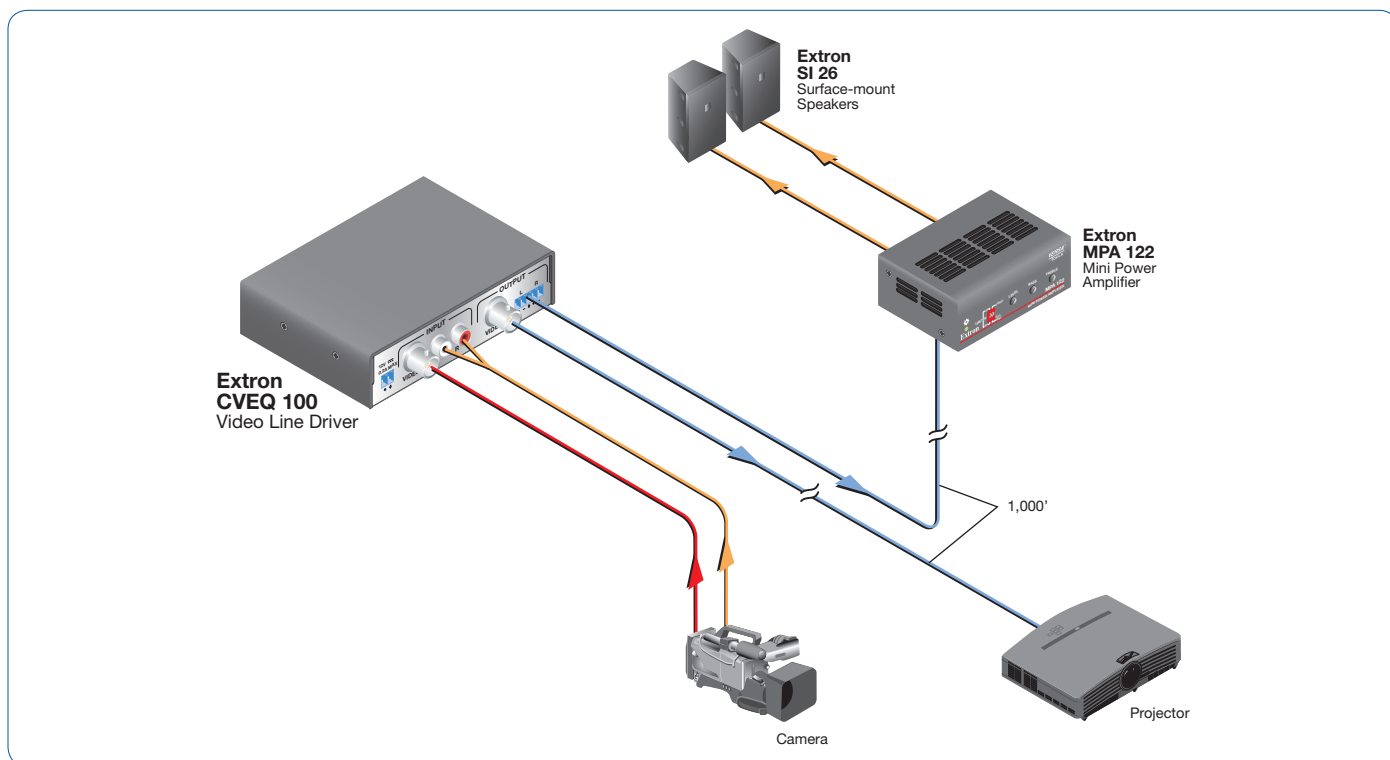
- 185 MHz (-3dB) video bandwidth
- Compatible with NTSC, PAL, and SECAM
- Peaking/equalization and gain controls
- Balanced and unbalanced stereo audio outputs
- External universal power supply included, part # 70-055-01

DESCRIPTION

The Extron **CVEQ Series** are one input, one output, line drivers for composite video and stereo audio. The Series is designed to compensate for signal attenuation and high frequency loss encountered during long cable runs, and features variable gain and equalization capabilities. The gain adjustment compensates for signal level losses, while the peaking/equalization adjustment compensates for high frequency loss. The CVEQ Series also provides active audio buffering with a choice of balanced or unbalanced stereo audio outputs.

When an application involves multiple video signals being run a variety of distances, individual signal adjustments are required to deliver signals of equivalent signal strength to each display. These types of applications require a separate equalizer for each signal. The CVEQ Series drives video signals up to 1,000 feet (300 meters) of Extron RG6 Super High Resolution coaxial cable.

The CVEQ Series tabletop/rackmount models are small and compact, so they can be placed or mounted anywhere and easily moved — features that are especially vital for rental and staging applications such as sales meetings, tradeshow exhibits, or large-venue presentations. Two architectural models, in AAP – Architectural Adapter Plate and WM – Wall Mount form factors, are also available.



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CVEQ Series

CVEQ 100

Composite Video and Audio Line Driver with Video Gain and Equalization

UNIQUE FEATURES

- Compact metal enclosure mounts easily on a tabletop, desktop, or back of rack



MODEL	VERSION DESCRIPTION	PART #
CVEQ 100	Desktop.....	60-812-01

CVEQ 100 D NEW

Video and Audio Line Driver - Decora® Wallplate

UNIQUE FEATURES

- Output: Female BNC and captive screw connectors
- Mounts in Decora-style wallplates
- Includes black and white wallplates and trim plates
- Selectable dual mono or stereo audio output
- Dual color LED power indicator provides power and signal presence indication



MODEL	VERSION DESCRIPTION	PART #
CVEQ 100 D	Decora Wallplate	60-867-01

CVEQ1 AAP

Composite Video and Audio Line Driver with Video Gain and Equalization - AAP Version

UNIQUE FEATURES

- Output: Female BNC 4" pigtail and captive screw connectors
- Mounts in products that accept a double space AAP-Architectural Adapter Plate



MODEL	VERSION DESCRIPTION	PART #
CVEQ1 AAP	AAP Module - Black.....	70-146-12
CVEQ1 AAP	AAP Module - White.....	70-146-22

CVEQ1 WM

Wall-Mountable Composite Video and Audio Line Driver with Video Gain and Equalization for One-Gang Wall Box

UNIQUE FEATURES

- Output: Female BNC on 4" pigtail and captive screw connectors
- Mounts in a standard one-gang electrical box



MODEL	VERSION DESCRIPTION	PART #
CVEQ1 WM	Wall mount - Black.....	60-435-12
CVEQ1 WM	Wall mount - White.....	60-435-22

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CVEQ Series

SPECIFICATIONS

VIDEO

Gain	
CVEQ1 AAP, CVEQ1 WM	-6 dB to +6 dB, adjustable: 0.5 V to 2.0 V \pm 10% with input at 1 volt
CVEQ 100 Series	Composite video and Y of S-video: -1 dB to +3 dB (x0.9 to x1.4), adjustable C of S-video: 0dB to +10 dB (x1 to x3), adjustable

Equalization

CVEQ1 AAP, CVEQ1 WM	4.5 dB max. @ 8 MHz
CVEQ 100 Series	0 dB to +7 dB (x1 to x2) at 5 MHz, adjustable

Bandwidth (Y of S-video) 185 MHz (-3 dB)

Differential phase error

(CVEQ1 AAP, CVEQ1 WM) 1° at 3.58 MHz

Differential gain error

(CVEQ1 AAP, CVEQ1 WM) 0.07% at 3.58 MHz

Output cable driving distance

(CVEQ 100 Series) Up to 1000' (300 m) with Extron MHR cable

VIDEO INPUT

Number/signal type 1 composite video

Connectors

CVEQ1 AAP, CVEQ1 WM,	
CVEQ 100	1 female BNC
CVEQ 100 D	1 female RCA

Nominal level 1 Vp-p for composite video (including sync)

Minimum/maximum levels

CVEQ1 AAP, CVEQ1 WM	Analog: 0.3 V to 2.0 Vp-p with no offset at unity gain
CVEQ 100, CVEQ 100 D	0.4 to 2.0 Vp-p with no offset at unity gain

Impedance 75 ohms

Return loss

CVEQ1 AAP, CVEQ1 WM	<-30 dB @ 5 MHz
CVEQ 100 Series	<-25 dB @ 0 to 5 MHz

DC offset (max. allowable) 4.0 V

Input coupling AC

VIDEO OUTPUT

Number/signal type 1 equalized composite video

Connectors 1 female BNC

Nominal level 1 Vp-p for composite video (including sync) at unity gain

Minimum/maximum levels

CVEQ1 AAP, CVEQ1 WM	0.3 V to 2.0 Vp-p
CVEQ 100 Series	0.4 to 2.0 Vp-p (follows input)

Impedance 75 ohms

Return loss -30 dB @ 5 MHz

DC offset

CVEQ1 AAP, CVEQ1 WM	\pm 50 mV with input at 0 offset
CVEQ 100 Series	\pm 5 mV with no input signal Floating: +0.1 to -0.6 V, depending on input signal content

SYNC

Standards NTSC 3.58, NTSC 4.43, PAL, SECAM

AUDIO

Gain Unbalanced output: 0 dB; balanced output: +6 dB

Frequency response

CVEQ1 AAP, CVEQ1 WM	20 Hz to 20 kHz, \pm 0.5 dB
CVEQ 100 Series	20 Hz to 20 kHz, +0.05 dB, -0.0 dB

THD + Noise

CVEQ1 AAP, CVEQ1 WM	0.025% @ 1 kHz, 0.020% @ 20 kHz at nominal level
CVEQ 100 Series	0.015% @ 1 kHz at nominal level

S/N

CVEQ1 AAP, CVEQ1 WM	>86 dB at output 6 dB, balanced
CVEQ 100 Series	>100 dB at maximum output (unweighted)

Stereo channel separation

CVEQ1 AAP, CVEQ1 WM	>75 dB @ 20 Hz to 20 kHz
CVEQ 100 Series	>80 dB @ 1 kHz

Output cable driving distance

(CVEQ 100 Series) Up to 1000' (300 m) with Extron RG-6 SHR cable

AUDIO INPUT

Number/signal type 1 stereo unbalanced

Connectors 2 RCA female

Impedance

CVEQ1 AAP, CVEQ1 WM	>10k ohms unbalanced, DC coupled
CVEQ 100 Series	20k ohms unbalanced, DC coupled

Nominal level -10 dBV (316 mVrms)

Maximum level

CVEQ1 AAP, CVEQ1 WM	+6 dBV, balanced at 1% THD+N
CVEQ 100 Series	+8 dBV (2.5 V), unbalanced at 1% THD+N

NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV = 2 dBu

AUDIO OUTPUT

Number/signal type

CVEQ1 AAP, CVEQ1 WM,	
CVEQ 100	1 stereo, balanced/unbalanced
CVEQ 100 D	1 stereo or dual mono (switch-selectable), balanced/unbalanced

Connectors

CVEQ1, CVEQ 100 Series	(1) 3.5 mm captive screw connector, 5 pole
CVEQ1 AAP	(1) 3.5 mm direct insertion captive screw connector, 5 pole

Impedance 50 ohms unbalanced, 100 ohms balanced

Nominal level

CVEQ1 AAP, CVEQ1 WM	-2 dBu (632 mV), balanced output
CVEQ 100 Series	-10 dBV (316 mVrms), unbalanced; -2 dBu (632 mV), balanced output

Maximum level

CVEQ1 AAP, CVEQ1 WM	
Maximum level (HF-Z)	>+16 dBu, balanced at 1% THD+N
Maximum level (600 ohm)	>+9 dBm, balanced at 1% THD+N
CVEQ 100 Series	+9 dBV (2.8 V) unbalanced, +17 dBu (5.6 V) balanced at 1% THD+N with a 10k ohm load

GENERAL

External power supply 100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A (max.), regulated

Power input requirements

CVEQ1 AAP, CVEQ1 WM	12 VDC, 0.4 A
CVEQ 100 Series	12 VDC, 0.2 A

Temperature/humidity Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing

Cooling Convection, unvented

Rack mount

CVEQ 100 Yes, with optional 1U rack shelf, part #60-190-01 or 60-604-01; or 1U, 6" deep rack shelf, part #60-190-10 or 60-604-10; or VersaTools® 3" deep rack shelf, part #60-190-20 or 60-604-20.

Also furniture and projector mountable with optional mounting kits.

All other models No, but wall- and furniture mountable.

Enclosure type

CVEQ 100, CVEQ1 AAP,	
CVEQ1 WM	Metal
CVEQ 100 D	Metal rear enclosure, plastic faceplate

Enclosure dimensions

CVEQ1 AAP	
Plate	1.4" H x 3.5" W x 0.1" D (2.8 cm H x 8.9 cm W x 0.3 cm D) (double space high AAP plate)
Circuit board	1.1" H x 2.7" W x 1.7" D (2.8 cm H x 6.9 cm W x 4.3 cm D) (Height includes connectors, but not cables.)
CVEQ1 WM	
Plate	4.5" H x 2.8" W x 0.1" D (11.4 cm H x 7.1 cm W x 0.3 cm D) (1 gang)
Circuit board	2.7" H x 1.1" W x 1.7" D (6.9 cm H x 2.8 cm W x 4.3 cm D) (Width includes connectors, but not cables.)
CVEQ 100	1.0" H x 4.3" W x 3.0" D (<1U high, quarter rack wide) 2.5 cm H x 11.0 cm W x 7.6 cm D (Depth excludes connectors.)

CVEQ 100 D

Faceplate	2.6" H x 1.3" W x 0.1" D (6.6 cm H x 3.3 cm W x 0.3 cm D) (Fits the opening in a 1 gang Decora faceplate. *Height is 3.8" [9.7 cm] including mounting tabs.)
Device	2.7" H x 1.8" W x 0.75" D (6.9 cm H x 4.6 cm W x 1.9 cm D) (Depth excludes connectors, height excludes mounting tabs.)

Product weight

CVEQ1 AAP, CVEQ 100 D	0.2 lbs (0.1 kg)
CVEQ1 WM	0.3 lbs (0.1 kg)
CVEQ 100	0.7 lbs (0.3 kg)

Shipping weight

CVEQ 100 D, CVEQ1 AAP	2 lbs (1 kg)
CVEQ 100, CVEQ1 WM	3 lbs (2 kg)

Vibration ISTA 1A in carton (International Safe Transit Association)

Listings UL, CUL

Compliances

CVEQ1 AAP, CVEQ1 WM	CE, FCC Class A
CVEQ 100 Series	CE, FCC Class A, VCCI, AS/NZS, ICES

MTBF 30,000 hours

Warranty 3 years parts and labor

NOTE: All nominal levels are at \pm 10%. Specifications are subject to change without notice.